

CLAIMS

1. Improved apparatus (1) for carbamate decomposition and ammonia and carbon dioxide stripping from urea solutions, of the type comprising:

5 - a stripper (2) including a substantially cylindrical shell (3) closed at opposed ends by respective bottoms (A, B) and equipped in the proximity thereof with inlet and outlet openings (N1, N2, N3, N4, N5, N6) of stripping fluids, heat exchange (4) and control means and devices
10 for the stripping step;

- a structure (6) for supporting said shell (3) in vertical position;

characterized in that the shell (3) of the stripper (2) can be fitted onto said structure (6) in two distinct
15 vertical positions rotated by 180° with respect to a horizontal axis of symmetry (x-x) of said stripper.

2. Apparatus according to claim 1, characterized in that said inlet and outlet openings (N1, N2, N3, N4, N5, N6) of the stripping fluids are symmetrical in the stripper
20 (2) with respect to said symmetry axis (x-x).

3. Apparatus according to claim 1, characterized in that said shell (3) is externally equipped, in the proximity of said bottoms, with support elements (7) arranged symmetrically with respect to the symmetry axis (x-x).

25 4. Apparatus according to claim 1, characterized in that said heat exchange (4) and control means and devices of the stripping step are arranged in the stripper shell symmetrically with respect to said symmetry axis (x-x).

5. Apparatus according to claim 1, characterized in that
30 it comprises connection elements between said inlet and outlet openings (N1, N2, N3, N4, N5, N6) and

6. Apparatus according to claim 1, characterized in that said horizontal symmetry axis (x-x) is defined by the intersection of a middle horizontal plane (P) of the stripper with a diametral vertical plane (Q) of the stripper.

8. Method for increasing the service life of an apparatus
20 for carbamate decomposition and ammonia and carbon
dioxide stripping from synthesis urea aqueous solutions
containing them, said apparatus comprising:

- a stripper (2) including a substantially cylindrical shell (3) closed at opposed ends by respective bottoms (A, B) and equipped in the proximity thereof with inlet and outlet openings (N1, N2, N3, N4, N5, N6) of stripping fluids, heat exchange (4) and control means and devices for the stripping step;

- a structure (6) for supporting said shell (3) in
30 vertical position;

characterized in that it provides for a rotation by 180° of said shell (3) with respect to a horizontal symmetry axis (x-x) of the stripper, after a predetermined time

period, when a predetermined degree of wear of an upper portion of said heat exchange means has been reached.

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